



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/778,079      | 02/07/2001  | Wataru Kubo          | P20277              | 4565             |

7055 7590 01/28/2002

GREENBLUM & BERNSTEIN, P.L.C.  
1941 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT PAPER NUMBER

2653

DATE MAILED: 01/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/778,079

Applicant(s)

KUBO, WATARU

Examiner

Aristotelis M Psitos

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 & 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2653

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

The IDS of 5/7 and 7/11 OF 2001 have been received and made of record.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the NA and refractive index values as recited in claims 1 and 2 and the process of glass molding of claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 3, it appears to be processes/manufacturing limitations. This is an improper dependent claim combination – i.e. the parent claim is a product. If applicant is attempting to limit their invention to a process of manufacturing, then the parent claim should be drawn to manufacturing step(s).

Art Unit: 2653

Claim 4 recites a desired wherein phrase and as such does not add any element(s) structural limitations to the single glass plano-convex lens.

AS FAR AS THE CLAIMS RECITE POSITIVE LIMITATIONS THE FOLLOWING ART REJECTIONS ARE MADE.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(s) as being anticipated by JP 8-315404.

As indicated in the EP report submitted by applicant, the JP document meets the limitations of claim 1 at the description of table 3 for instance wherein the SIL has an NA greater than 0.7

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by GB 2168166.

The embodiments # 63 and #64 anticipate claim 1.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Powell.

Powell is relied upon for the reasons stated in the EP search report. Furthermore, Powell discloses the appropriate limitation with respect to the refractive index.

10. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by the cited Melles Griot article.

Art Unit: 2653

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art documents as applied to claim 1 as stated above each further considered with either Powell or Lee et al.

The ability of having a refractive index of glass as recited in claim 2 is taught by the Powell reference or the Lee et al reference.

The selection of the appropriate refractive index is considered merely a selection from a plurality of refractive indexes in this environment. Either Powell or Lee et al teach as to why such a refractive index is desired.

It would have been obvious to one of ordinary skill in the art to modify the base references as stated above with respect to claim 1 with the teaching(s) from either Powell or Lee et al, motivation being to select an appropriate refractive index for the plano-convex lens to impose the appropriate angle of refraction. No unexpected results are seen to occur from selecting such values.

14. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Lee et al.

The ability of having a flange with the sil is taught by the Lee et al reference. See the description of elements 16a and 16b. Lee et al states that these are molded. Although the pair of dies

Art Unit: 2653

limitation of claim 3 is not clearly found in Lee et al, the use of dies in the glass molding art is considered well known and Official notice is taken thereof.

It would have been obvious to one of ordinary skill in the art to modify the base reference of either the HP of GB reference as relied upon with respect to claim 1 with the teaching(s) from Lee et al, motivation being to provide for an appropriate place for the actuator element(s) in the overall SIL system. Furthermore, the use of dies for molding glass is considered common in manufacturing processes and obvious to use – use common manufacturing techniques to yield the element.

15. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over any of the references as applied to claim 1 above, and further in view of Nakaoki et al.

Claim 5 calls for a light source and appropriate mag. Coil. This overall combination is well known in the optical arts – see Nakaoki et al which additionally provides for an overall NA of his optical system of greater than 0.8.

Any of the above noted references as cited above with respect to claim 1 teach such NA values. It would have been obvious to one of ordinary skill in the art to modify the base reference of Nakaoki with the teaching(s) from any of the secondary references – i.e., GB, JP, Melles Griot, Powell – in order to have the NA requirement as recited in the base reference to Nakaoki et al.

### ***Conclusion***

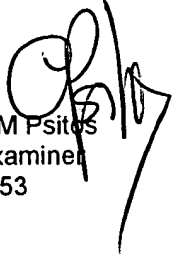
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suda et al – requirements for non-spherical lens.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Art Unit: 2653

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

  
Aristotelis M Psitos  
Primary Examiner  
Art Unit 2653

AMP  
January 25, 2002